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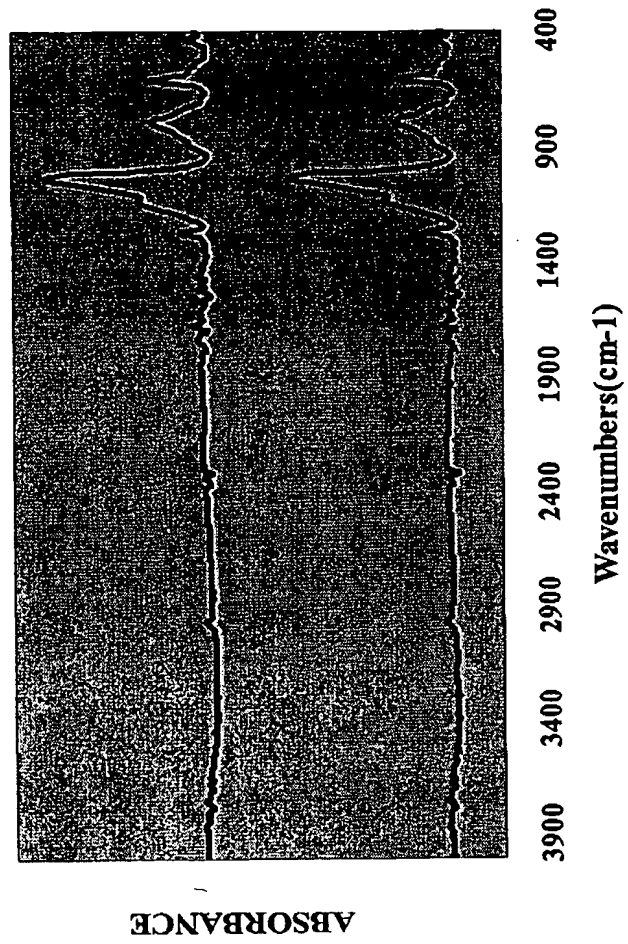
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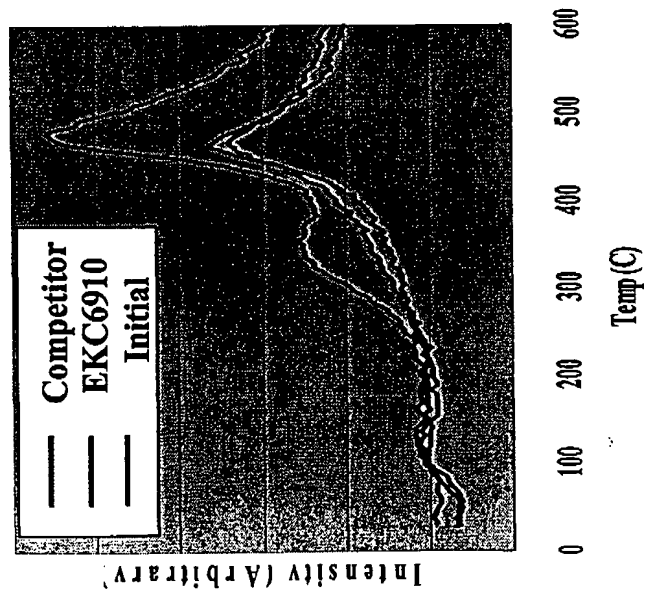
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FIG. 1



# TDS Data ( $M_z = 18$ )

## CVD SiOC



## Porous MSQ

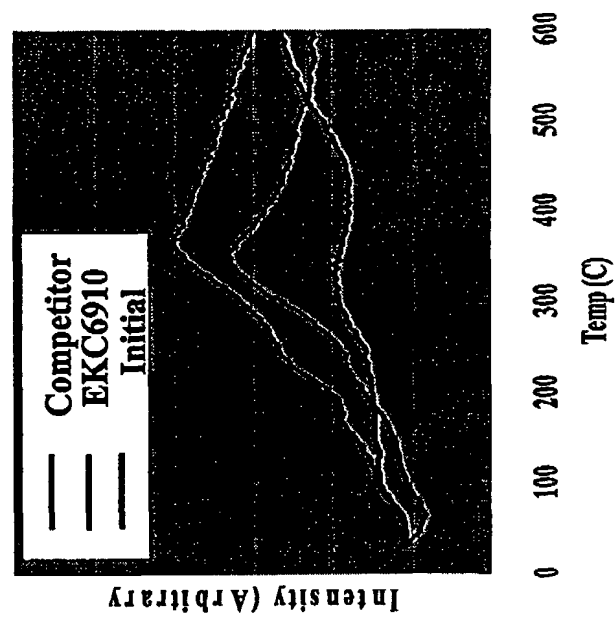
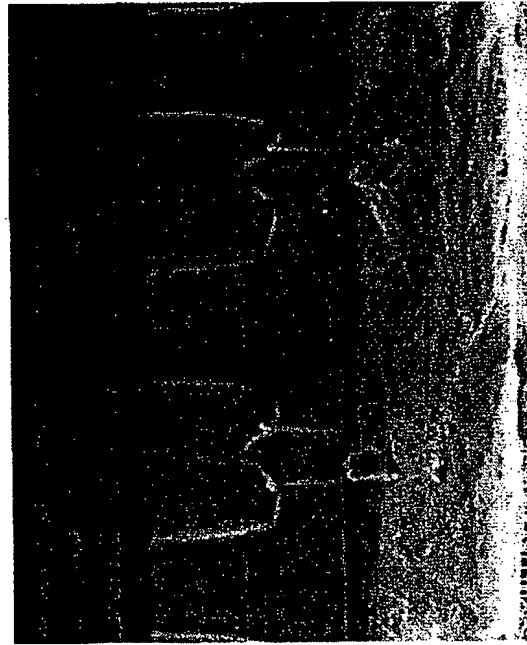
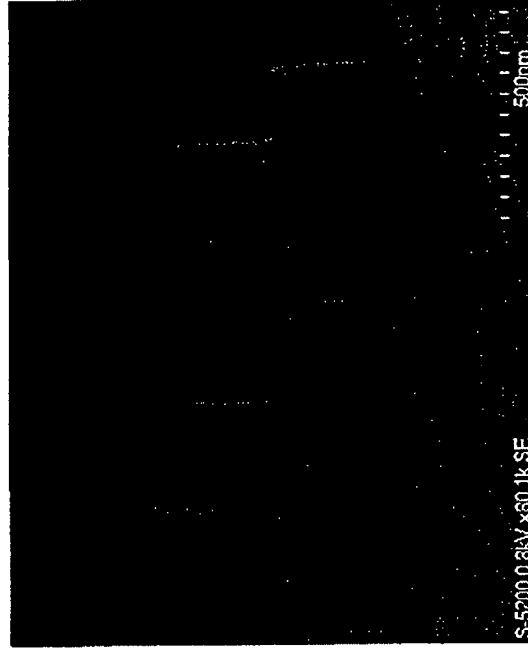


FIG. 2

FIG. 3



Initial



After Cleaning

## pH Stability (Bath-life)

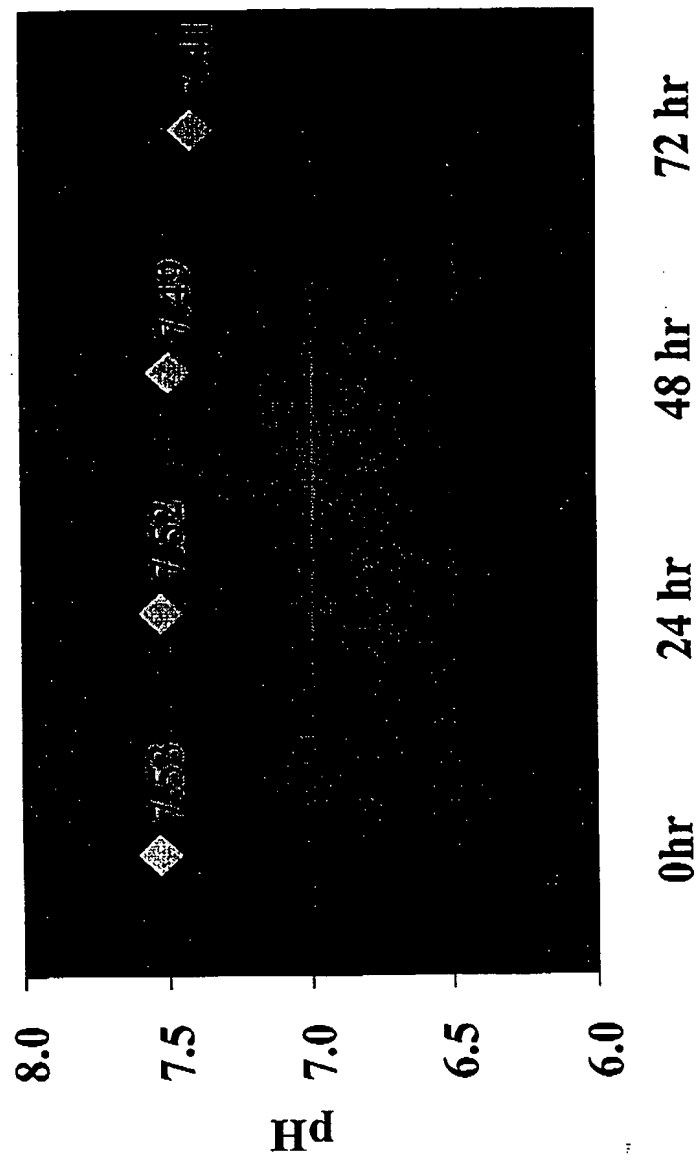


FIG. 4

FIG. 5

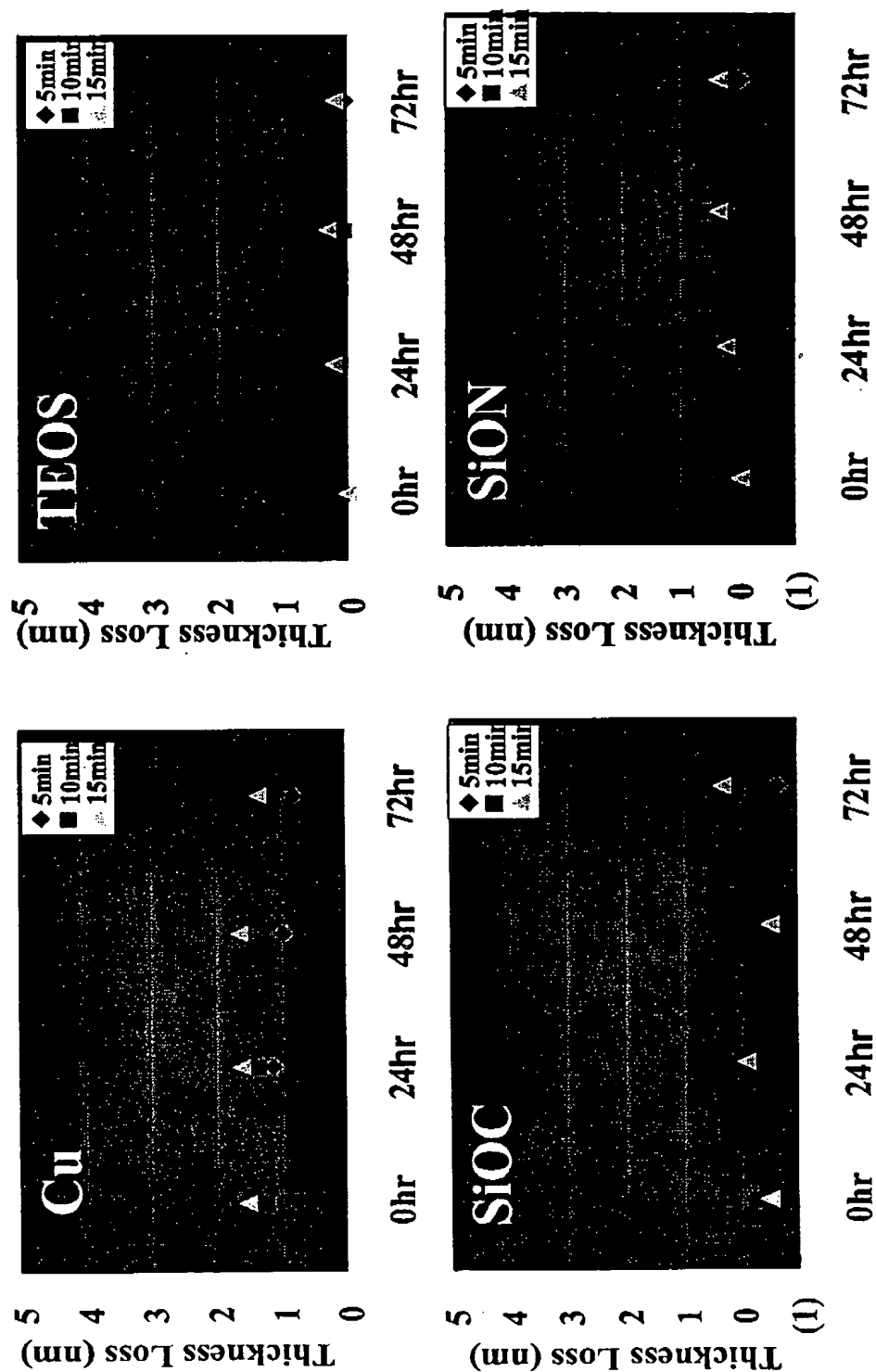


FIG. 6

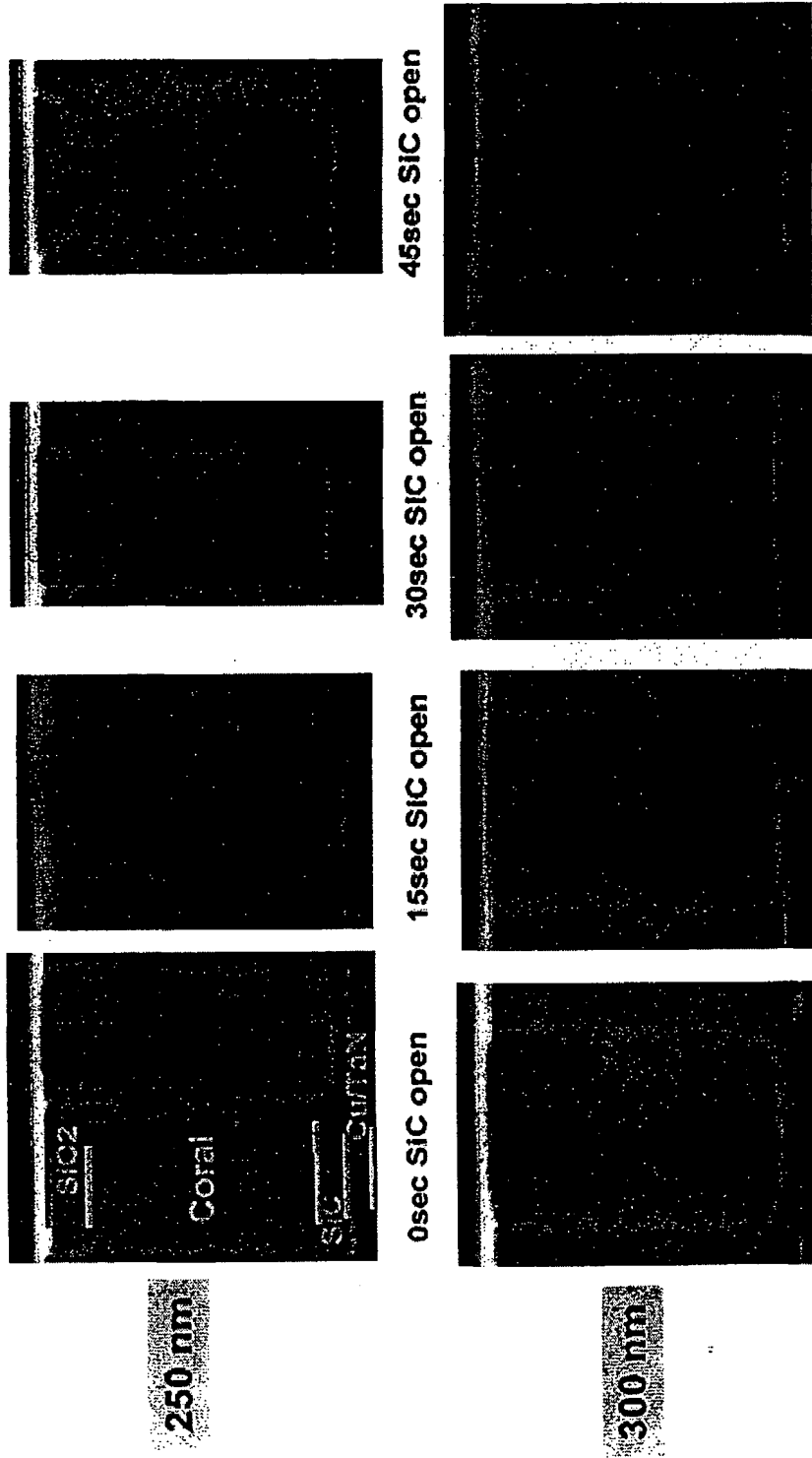
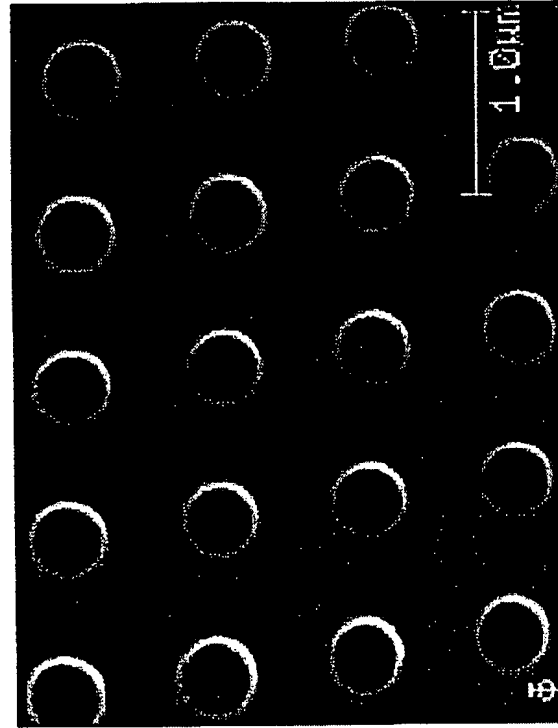


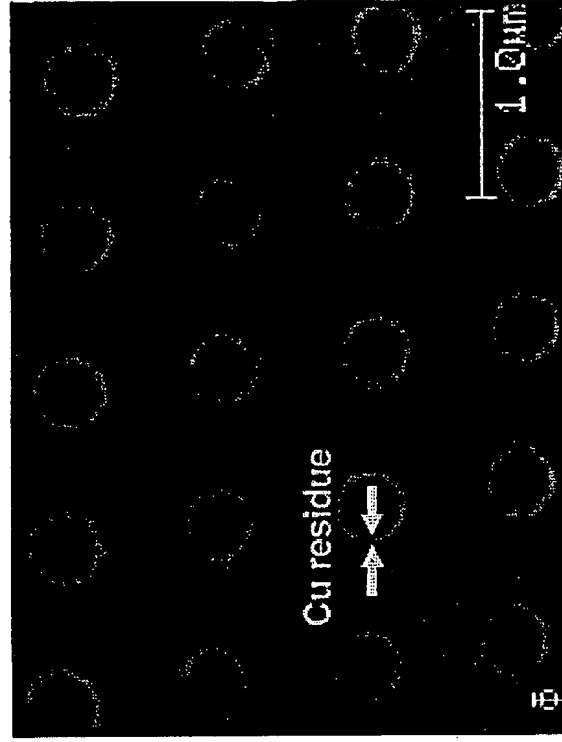
FIG. 7

## Top Views of Via Arrays

SEM image and AES map , 45 sec via open process



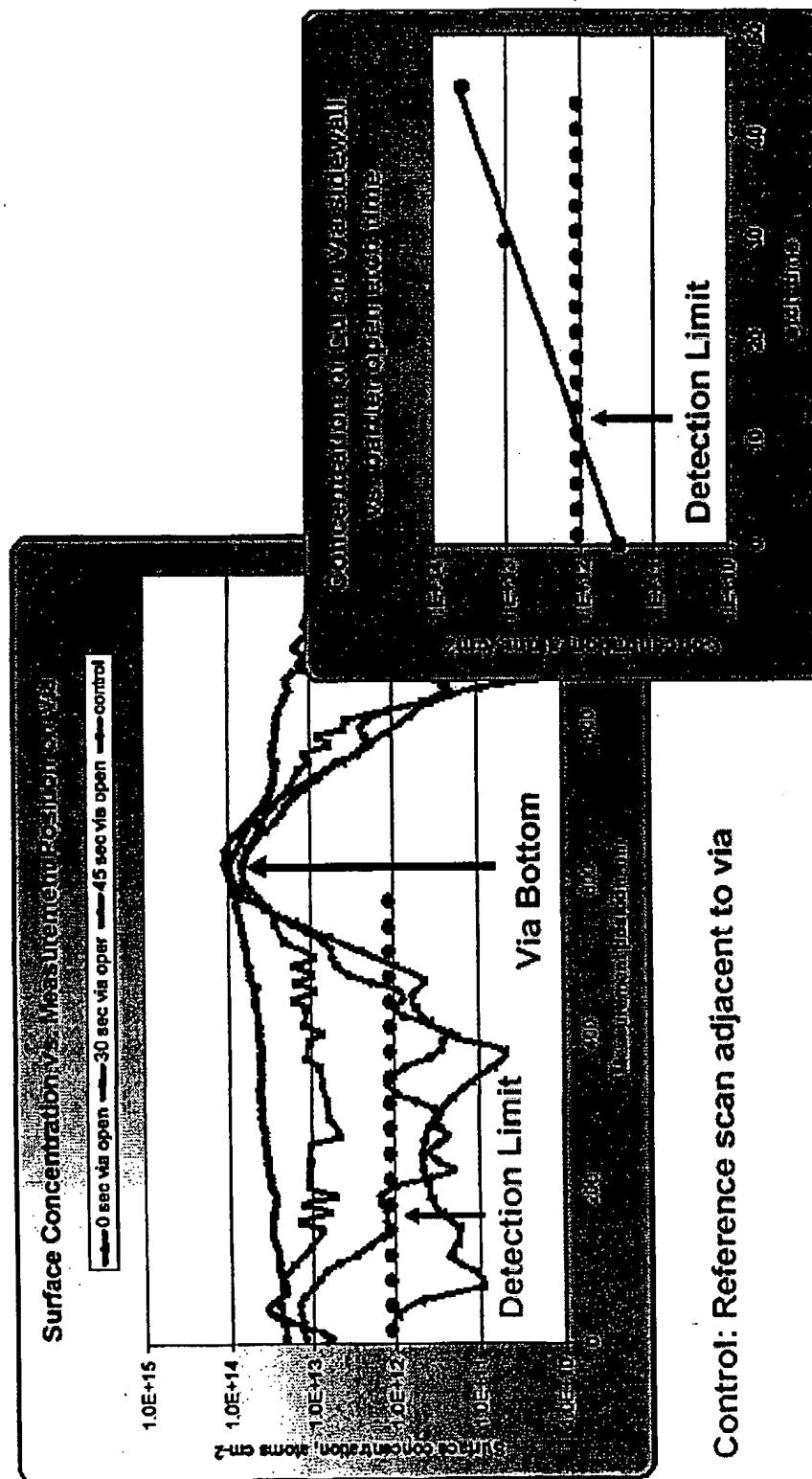
SEM



Cu AES Map

FIG. 8

# **Cu Concentration Scan: Dynamic FE Auger** As a function of position on via sidewall



Control: Reference scan adjacent to via